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(54) Title: MANIPULATION OF ASCORBIC ACID LEVELS IN PLANTS

(57) Abstract: Methods for increasing the vitamin C content of plants are provided by transforming the plants with genes encoding a novel vitamin C biosynthetic pathway. Vitamin C production is increased in the resulting transgenic plants, providing, for example, higher nutritional value and longer shelf-life of produce. Further, the leaves of air-cured varieties of tobacco transformed in this manner contain lower levels of highly carcinogenic tobacco specific nitrosamines (TSNAs).

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